CyberView™

User Manual

1U LCD Keyboard Drawers
17" and 19" Screen Sizes

ERM Series

- Optical Mouse
- 1U 17" or 19" Screen

ER1-17/19 D/T

- Desktop Style Keyboard
- 1U 17" or 19" Screen

Contents

Chapter 1 Getting Started

1.1 Important Safeguards.....1
1.2 Regulatory Notice.....2
1.3 Package Contents.....3-4
1.4 Before Installation.....5
1.5 Unpacking.....5
1.6 Optional Accessories.....5
1.7 Peripheral Products.....6
1.8 Structure Diagram.....7
1.9 How to Install “One Man” Installation Slides.....8-9
1.10 How to Use The Slides.....10
1.11 ER1-17/19M (Single console)
- Use CE-6 to connect to server via PS/2 interface.....11
1.12 ER1-17/19M (Single console)
- Use CE-6 to connect to KVM via PS/2 interface.....11
1.13 ER1-17/19M-USB (Single console)
- Use CE-6 to connect to server via USB interface.....12
1.14 ER1-17/19M-USB (Single console)
- Use CE-6 to connect to KVM via USB interface.....12

Chapter 2 Operation

2.1 On-Screen Display Operation.....13
2.2 On-Screen Menu.....14

Chapter 3 Standard Specification

3.1 Specifications.....15
3.2 Keyboard & Mouse.....16

Chapter 4 Optional Specification

4.1 KVM Options.....17
4.2 DVI-D Input Option.....17
4.3 BNC+ S-Video Option.....17
4.4 Audio Option.....18
4.5 Touchscreen Options.....19
4.6 DC Power Options.....19

Chapter 5 Troubleshooting.....20

Chapter 6 Dimensions.....21

1.1 Important Safeguards

Chapter 1

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
  - ☐ Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - ☐ Repair or attempted repair by anyone not authorized by us.
  - ☐ Any damage of the product due to shipment.
  - ☐ Removal or installation of the product.
  - ☐ Causes external to the product, such as electric power fluctuation or failure.
  - ☐ Use of supplies or parts not meeting our specifications.
  - ☐ Normal wear and tear.
  - ☐ Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

1.2 Regulatory Notice

Legal Information

First English printing, October 2002
Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

Safety Instructions

- Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40º Celsius (104º Fahrenheit).
- When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the drawer is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labeled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equip ment and invalidate its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

Regulatory Notices Federal Communications Commission (FCC)

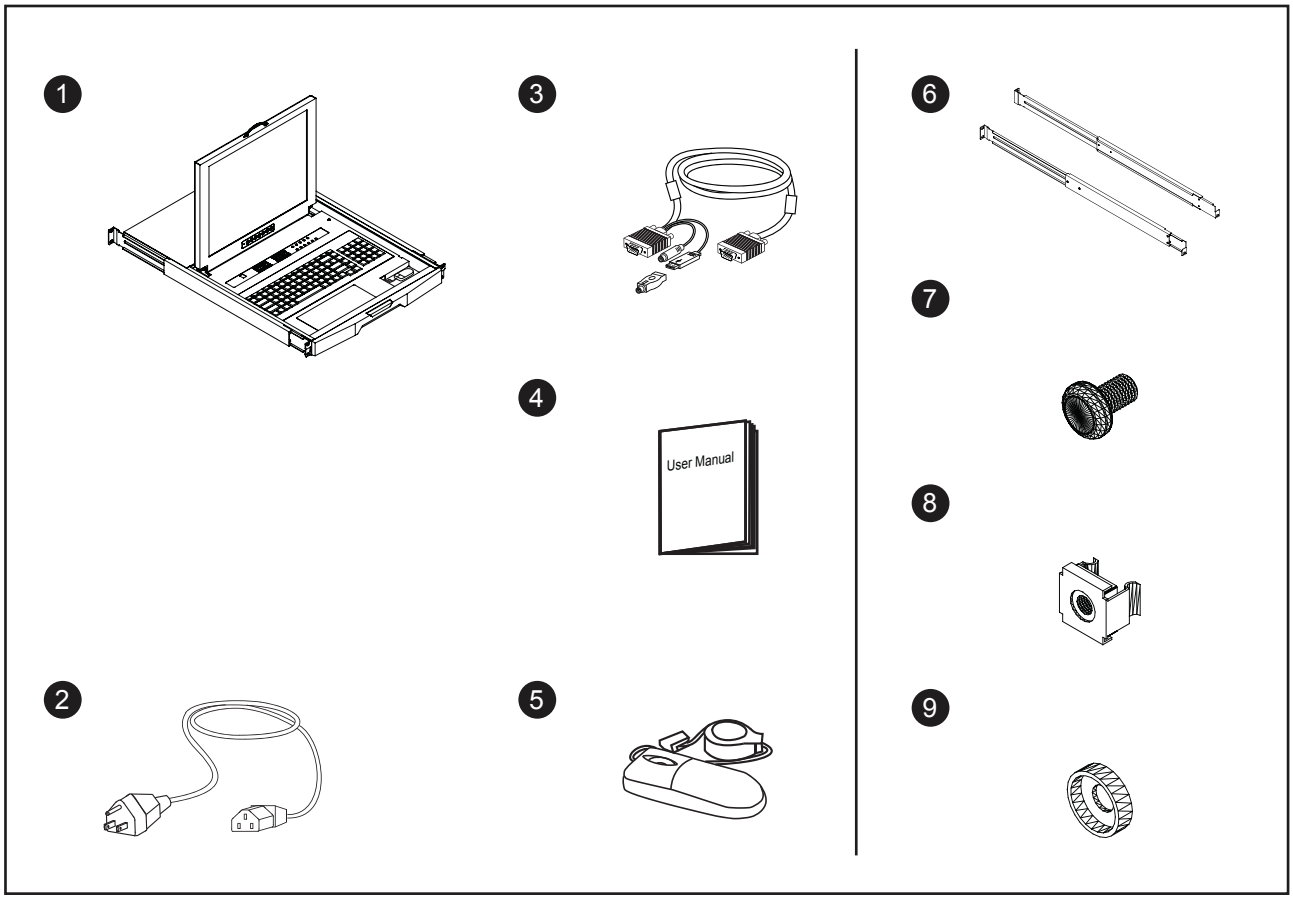
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
Any changes or modifications made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reposition or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

1.3 Package Contents

Chapter 1

For ERM Series



① LCD keyboard drawer x 1 pc

② Power cord x 1 pc

③ **CE-6** Combo 4-in-1 KVM cable x 1 pc

④ User manual (As of Sept 2011, all user manuals will be download-only. Physical copies are available upon request)

⑤ **WOM-01** Mini USB optical mouse x 1 pc

⑥ Mounting bracket x 2 pcs

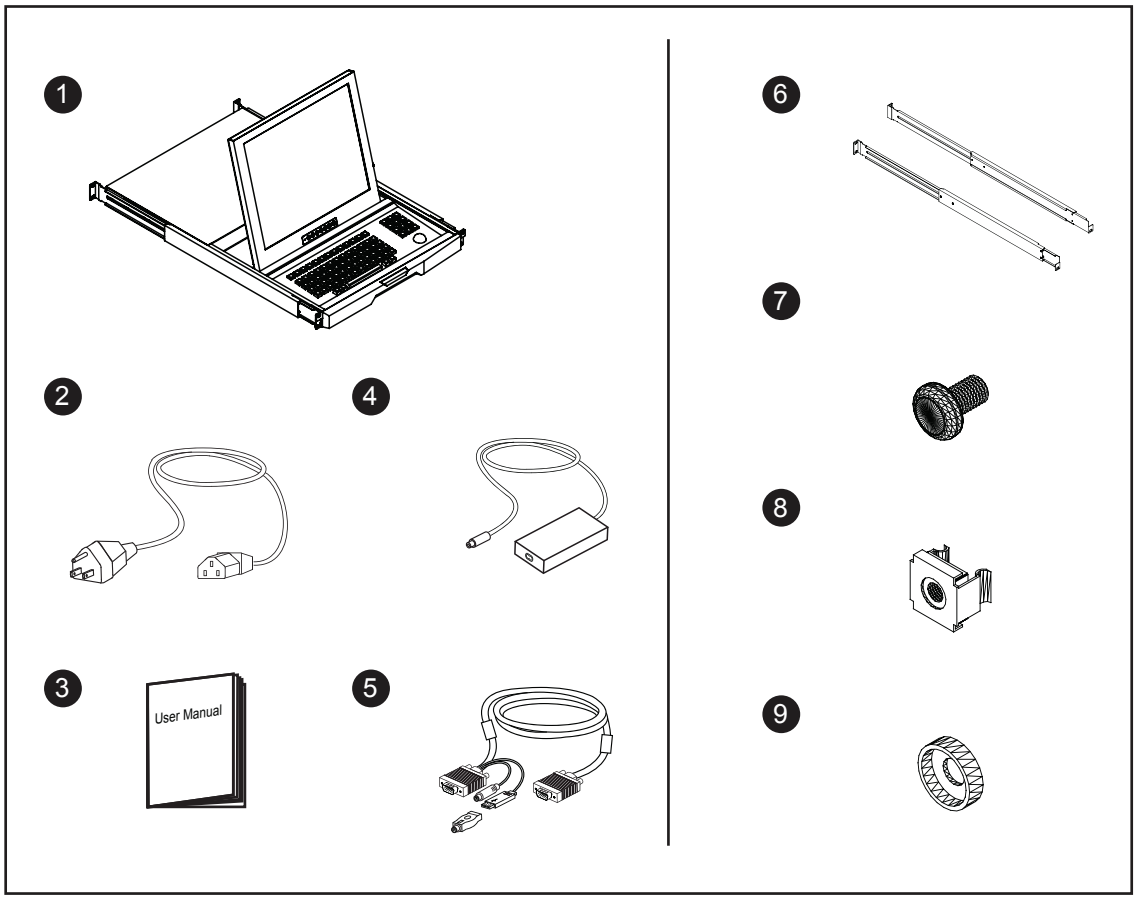
⑦ M6*15mm screw x 8 pcs

⑧ M6 cage nut x 6 pcs

⑨ Cup washer x 8 pcs

1.3 Package Contents

For ER1 D/T Series



① LCD keyboard drawer x 1 pc

② Power cord x 1 pc

③ User manual (As of Sept 2011, all user manuals will be download-only. Physical copies are available upon request)

④ Auto switch power adapter x 1 pc

⑤ **CE-6** Combo 4-in-1 KVM cable x 1 pc

⑥ Mounting bracket x 2 pcs

⑦ M6*15mm screw x 8 pcs

⑧ M6 cage nut x 6 pcs

⑨ Cup washer x 8 pcs

1.4 Before Installation

- It is very important to locate the LCD Keyboard Drawer in a suitable environment.
- The surface for placing and fixing the LCD Keyboard Drawer should be stable and level or mounted into a suitable cabinet.
- Make sure the place has good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.
- Position LCD Keyboard Drawer with respect to related facilities.

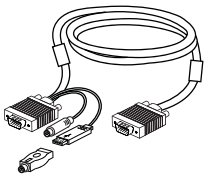
1.5 Unpacking

The LCD keyboard drawer comes with the standard parts shown on the package contents. Check and make sure they are included and in good condition. If anything is missing, or damage, contact the supplier immediately.

1.6 Optional Accessories

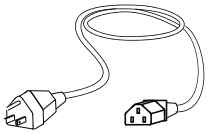
1. Combo 4-in-1 KVM cable

1.1 CAE-6 (CE-6) 6 feet
1.2 CAE-10 (CE-10) 10 feet
1.3 CAE-15 (CE-15) 15 feet



2. Power Cord

2.1 IEC power cord
2.2 NEMA 5-15 power cord (US)
2.3 BS 1363 power cord (UK)
2.4 CEE 7/4 power cord (German)
2.5 AS 3112 power cord (Australia)



3. Wireless USB optical mouse

3.1 WOM-02

Please Note:

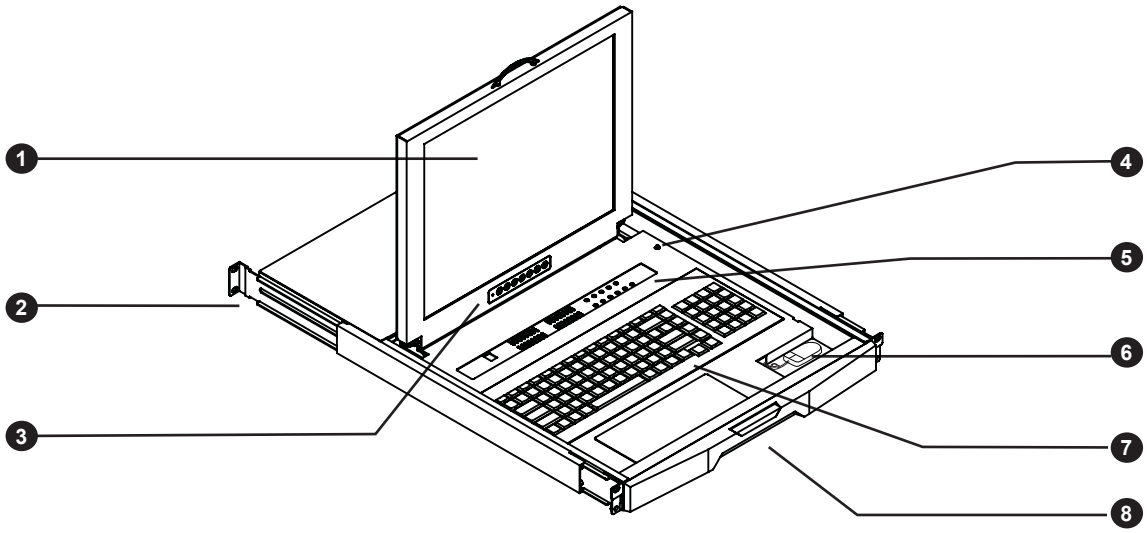
- WOM-02 pertains only to the ERM Series of products

1.7 Peripheral Products

Item	Model No.	Description
Matrix Cat6 KVM	16-Cat6-M2X / M3X / M4X 16-Cat6-M3X-IP / M4X-IP / M4X-2IP 32-Cat6-M2X / M3X / M4X 32-Cat6-M3X-IP / M4X-IP / M4X-2IP	Matrix Cat 6 16-Port KVM Matrix IP Cat 6 16-Port KVM Matrix Cat 6 32-Port KVM Matrix IP Cat 6 32-Port KVM
Matrix DB-15 KVM	8-M2X / M3X / M4X 8-M3X-IP / M4X-IP / M4X-2IP 16-M2X / M3X / M4X 16-M3X-IP / M4X-IP / M4X-2IP	Matrix DB-15 8-Port KVM Matrix IP DB-15 8-Port KVM Matrix DB-15 16-Port KVM Matrix IP DB-15 16-Port KVM
Combo Cat 6 KVM	8-Cat6 / 8-Cat6-2X / 8-Cat6-IP 16-Cat6 / 16-Cat6-2X / 16-Cat6-IP 32-Cat6 / 32-Cat6-2X / 32-Cat6-IP	Combo Cat 6 8-Port KVM Combo Cat 6 16-Port KVM Combo Cat 6 32-Port KVM
Combo DB-15 KVM	8-USB / 8-2X / 8-IP 16-USB / 16-2X / 16-IP	Combo DB-15 8-Port KVM Combo DB-15 16-Port KVM
PS/2 DB-15 KVM	4 / 8 / 16	4 / 8 / 16-Port PS/2 DB-15 KVM

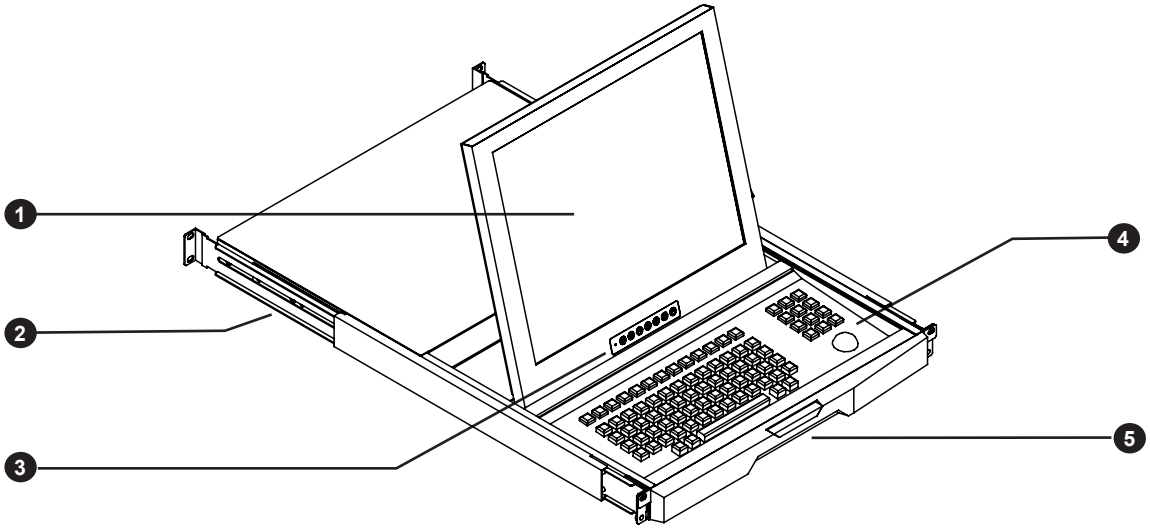
1.8 Structure Diagram

For ERM Series



① LCD interchangeable module kit
② “One Man” Installation Slide
③ LCD membrane
④ Microswitch
⑤ Membrane switch (KVM option)
⑥ Mini USB optical mouse
⑦ 104 key notepad keyboard with full numberical pad
⑧ Carry handle to release the 2-pt lock

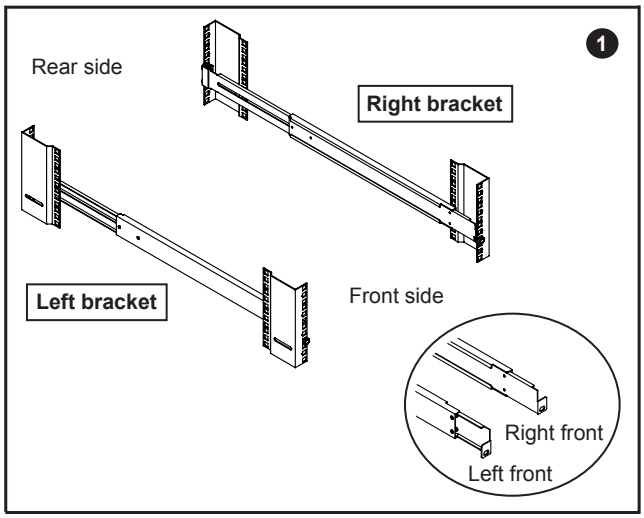
For ER1 D/T Series



① LCD interchangeable module kit
② “One Man” Installation Slide
③ LCD membrane
④ Full “Unix style” keyboard with numerial pad
⑤ Carry handle to release the 2-pt lock

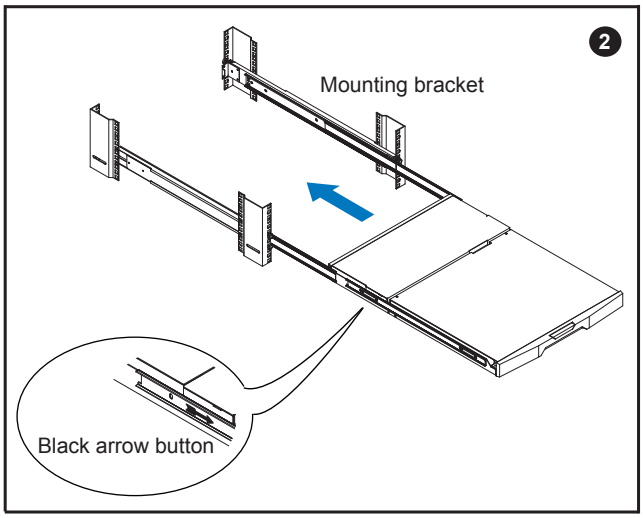
1.9 How to Install "One Man" Installation Slides

Install into rack

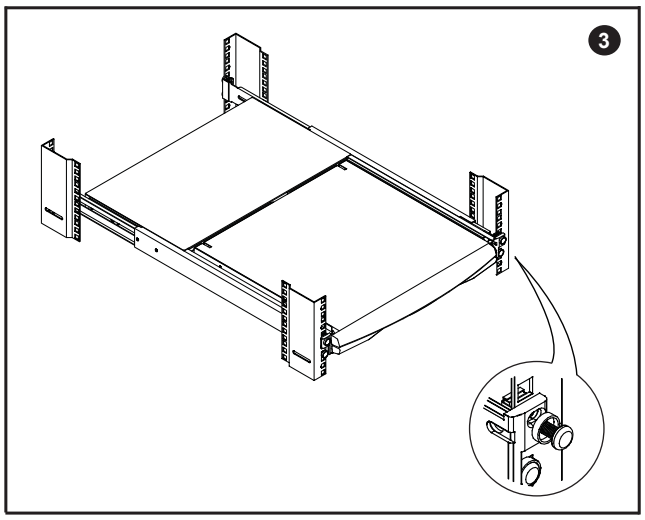


- Attach the left and right mounting bracket to rack 19” mounting rails.
- Adjust the rear mouting bracket to fit your rack.
- M6 screw and cup washer x 6 pcs included.

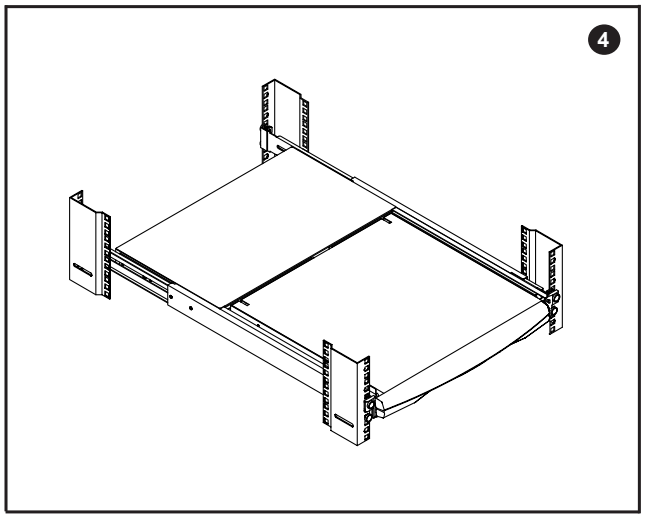
Caution : Leave the screws slightly loose until you complete the installation in step 4



- Pick up the LCD keyboard drawer.
- Insert the LCD keyboard drawer into the mounting bracket.
- Pull and hold the left & right black arrow buttons on the rails.
- Return the LCD keyboard drawer to park position.



- Attach front left and right mounting ears of the LCD keyboard drawer to vertical mounting rails.
- M6 screw and cup washer x 2 pcs included.



Complete the installation

- Tighten all 8 pcs of M6 screw to complete the installation.

1.10 How to Use the Slides

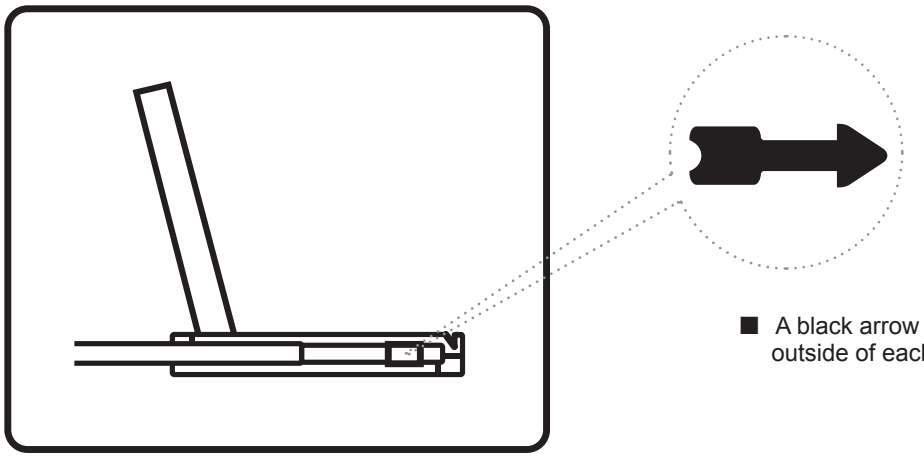


Figure 1.

■ A black arrow release button is located on the outside of each slide. (shown in **Figure 1)**.

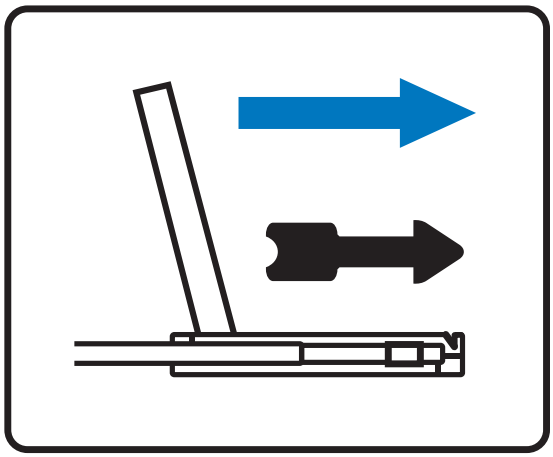


Figure 2.

■ Pull and hold the black arrow button on either side of the LCD keyboard drawer to unlock. (shown in **Figure 2)**.

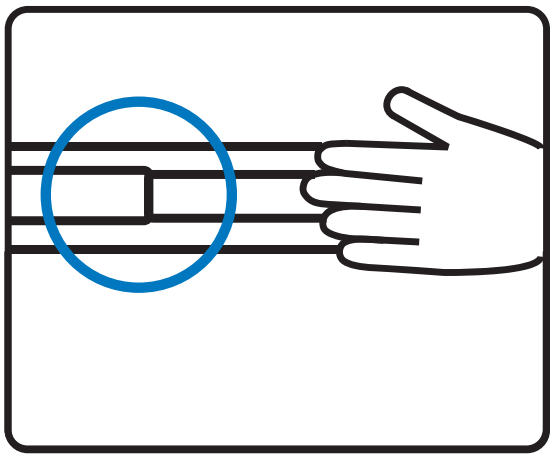


Figure 3.

■ Push the LCD keyboard drawer into the rack. (shown in **Figure 3)**.

Caution : Keep your fingers away from the slide stop.

1.11 ERM Series (Single Console)
- Use CE-6 to connect to server via PS/2 interface

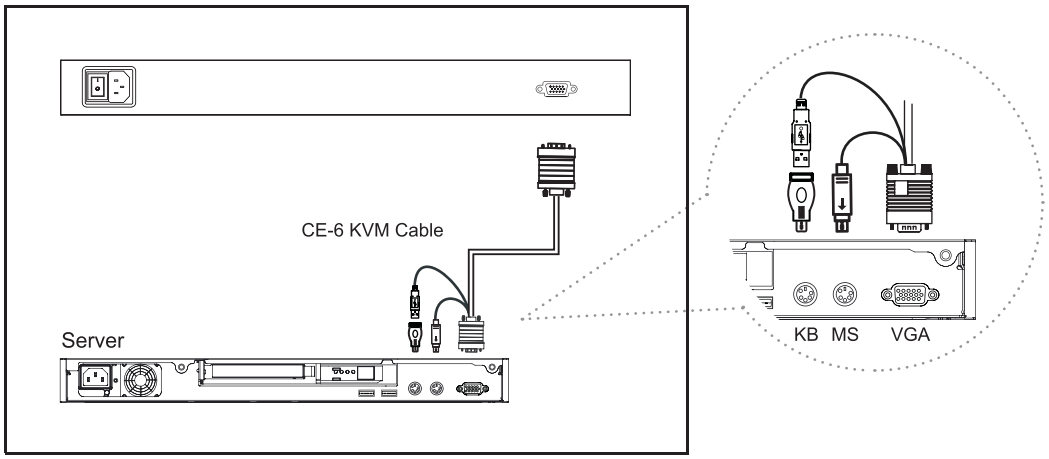


Figure 4. Example of connecting CE-6 4-in-1 Combo KVM cable to server via PS/2 interface

1.12 ERM Series (Single Console)
- Use CE-6 to connect to KVM via PS/2 interface

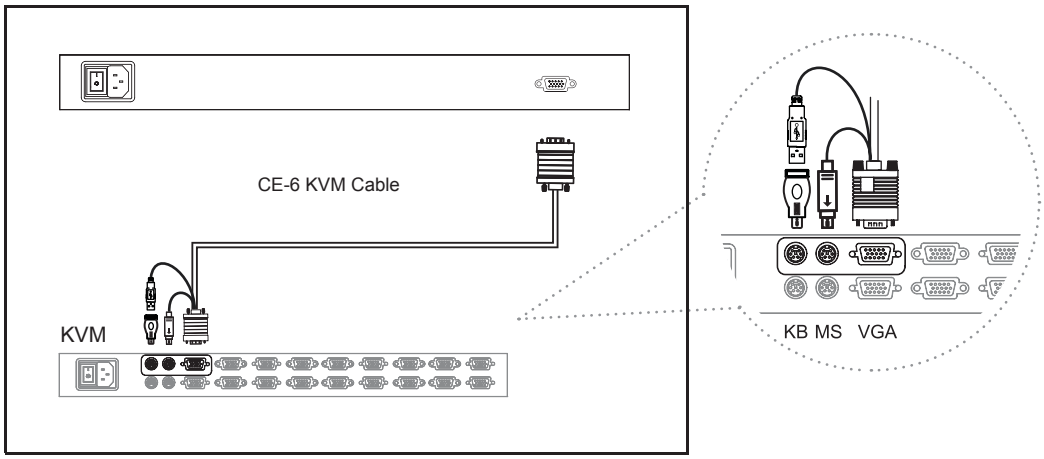


Figure 5. Example of connecting CE-6 4-in-1 Combo KVM cable to KVM via PS/2 interface

Please Note:

- ERM Series uses internal power via C13 (ER1 D/T models include an external power brick)
- The above diagrams pertain only to the single console LCD keyboard drawer
- For integrated KVM LCD keyboard drawers, please refer to the "All KVM" user manual

Caution : The LCD keyboard drawer is hot-pluggable, but components of connected devices, such as the servers and KVM switch, may not be hot-pluggable. Plugging and unplugging cables while servers and KVM are powered on may cause irreversible damage of the servers, KVM and LCD keyboard drawer. Before attempting to connect anything to the LCD keyboard drawer, we suggest turning off the power to all devices before connecting them. Apply power to connected devices again only after the LCD keyboard is receiving power. The supplier is not responsible for damage caused in this way.

1.13 ERM Series (Single Console)
- Use CE-6 to connect to server via USB interface

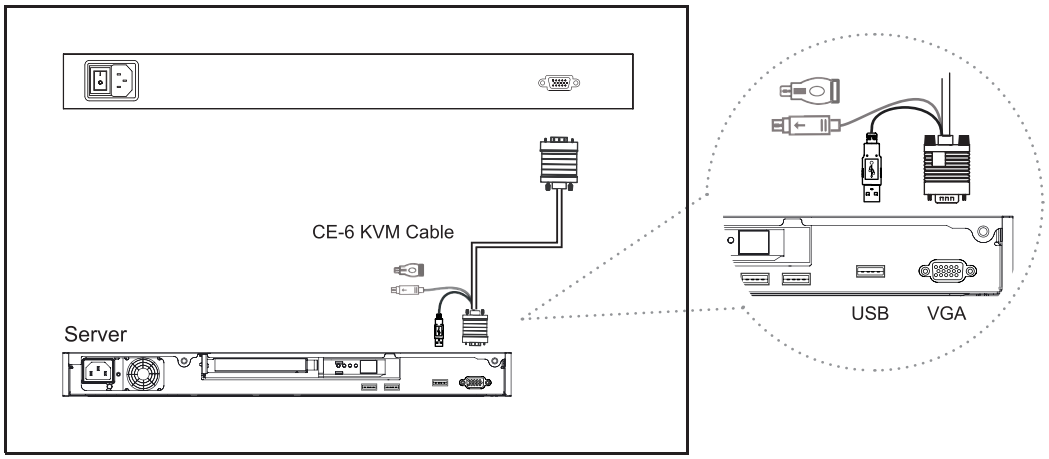


Figure 6. Example of connecting CE-6 4-in-1 Combo KVM cable to server via USB interface

1.14 ERM Series (Single Console)
- Use CE-6 to connect to KVM via USB interface

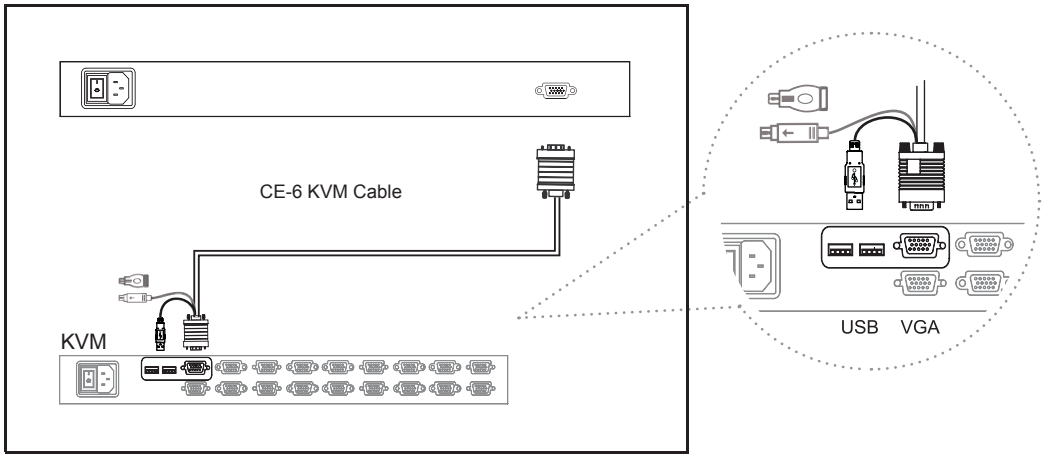


Figure 7. Example of connecting CE-6 4-in-1 Combo KVM cable to KVM via USB interface

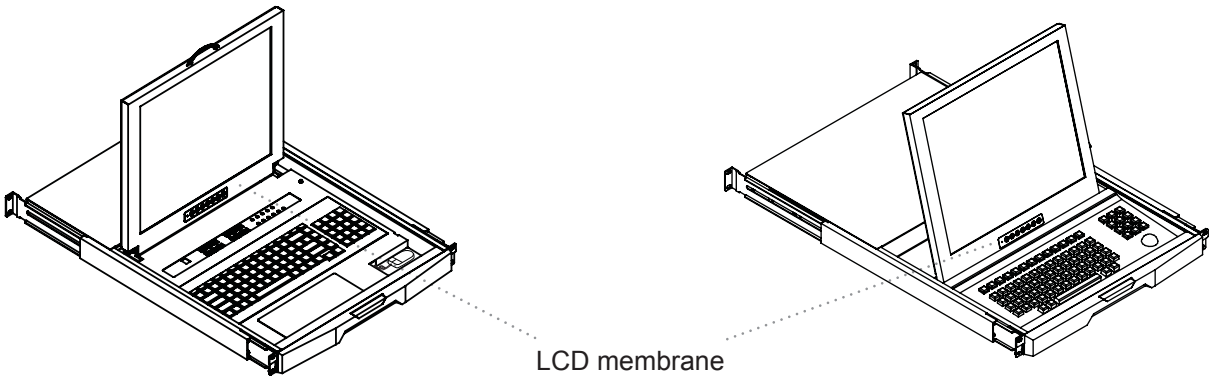
Please Note:

- ERM Series uses internal power via C13 (ER1 D/T models include an external power brick)
- The above diagrams pertain only to the single console LCD keyboard drawer
- For integrated KVM LCD keyboard drawers, please refer to the "All KVM" user manual

Caution : The LCD keyboard drawer is hot-pluggable, but components of connected devices, such as the servers and KVM switch, may not be hot-pluggable. Plugging and unplugging cables while servers and KVM are powered on may cause irreversible damage of the servers, KVM and LCD keyboard drawer. Before attempting to connect anything to the LCD keyboard drawer, we suggest turning off the power to all devices before connecting them. Apply power to connected devices again only after the LCD keyboard is receiving power. The supplier is not responsible for damage caused in this way.

2.1 On-Screen Display Operation

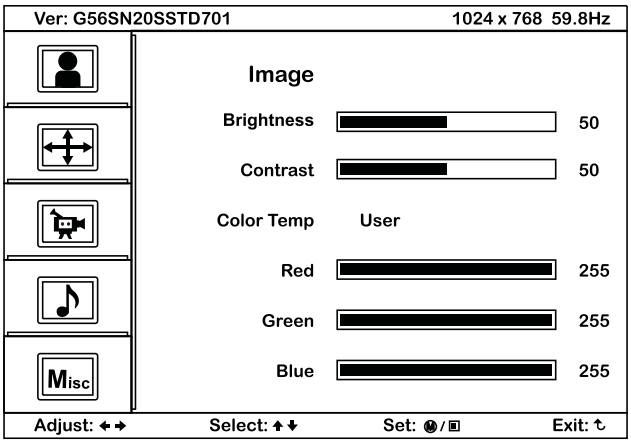
Chapter 2



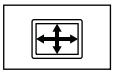
ERM-17/19

ER1-17/19 D/T

Membrane Switch	Function
○ ● ●	Power light Green = On Orange = Power saving
⏻	Power on / off LCD
M	Display the OSD menu
◈ ◈ ◈ ◈	Scrolls through menu options and adjusts the displayed control (To auto adjustment by pressing the button ◈ for 5 seconds)
↩	Exit the OSD screen Toggle analog, digital & video connection (DVI-D and video options only)



OSD Configuration Page

	Image: To enter into the brighness, contrast, color temp, red, green, and blue
	**Geometry:** To enter into the auto adjust, H position, V position, phase and clock
	Video: To enter into the colour, tint, sharpness, noise reduction, DCDi and TV Setup
	Audio: To enter into volume, bass, treble, balance, AVL and mute
	Misc: To enter into the language, OSD position, graphic mode, ratio, reset and timer

3.1 Specifications

Chapter 3

Item	Description			
Form Factor	1U rack mounting on slide-out rails			
LCD Manufacturer	SAMSUNG			
Mod	**ERM-17**	**ERM-19**	**ER1-17 D/T**	**ER1-19 D/T**
Diagonal Size	17" TFT	19" TFT	17" TFT	19" TFT
Max. Resolution	1280 x 1024	1280 x 1024	1280 x 1024	1280 x 1024
Brightness (cd/m²)	250	250	250	250
Color Support	16.7 M	16.7 M	16.7 M	16.7 M
Contrast Ratio (typ.)	1000:1	1000:1	1000:1	1000:1
Viewing Angle (H/V)	160˚ x 160˚	160˚ x 160˚	160˚ x 160˚	160˚ x 160˚
Display Area (mm)	338 x 270	376 x 301	338 x 270	376 x 301
Tr Response Time (ms)	1.3	1.3	1.3	1.3
LCD Panel MTBF (hrs)	50,000	50,000	50,000	50,000
VGA Signal Input	Analog RGB, 0.7Vp-p			
Sync. Type	Separate H/V, Composite, SOG			
Resolution	720 x 400, 70 Hz			
	640 x 480, 60/ 70/ 72/ 75 Hz			
	800 x 600, 60/ 70/ 72/ 75 Hz			
	1024 x 768, 60/ 70/ 75 Hz			
	1152 x 864, 60/ 70/ 75 Hz			
	1280 x 720, 60/ 70/ 75 Hz			
	1280 x 1024, 60/ 70/ 72/ 75 Hz			
Plug & Play DDC	EDID 1.3			
Console Port (Combo)	DB-15 connector for VGA / keyboard / mouse (Combo interface)			
Power Input	Auto-sensing 100 to 240VAC, 50 / 60Hz			
Power Consumption	Max. 48 Watt, Standby 5 Watt			
Compatibility	Multi-platform - Mix PCs, SUNs, IBMs, HPs & DELLs.			
Regulation Approval	FCC, CE, RoHS			

Options

KVM Integration	Matrix & combo KVM with IP console and 2 console selection	-
Keyboard & mouse	Full size keyboard built-in touch-pad / trackball	Desk top size keyboard with touchpad / trackball
Graphic Input	DVI-D, BNC & S-Video input	
DC Power	DC power input with 12V, 24V, 48V selection	
Touchscreen	Resistive & capacitive	

Environmental

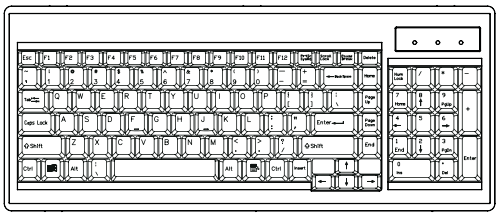
Operation	0˚ to 50˚C Degree
Storage	-5˚ to 60˚C Degree
Relative Humidity	5~90%, non-condensing
Shock	10G acceleration (11ms duration)
Vibration	5~500Hz 1G RMS random vibration

3.2 Keyboard & Mouse

For ERM Series

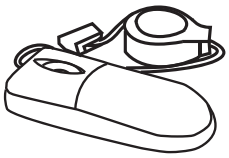
- Standard : **WOM-01** Wired mini USB optical mouse
- Optional : **WOM-02** Wireless optical mouse
- Multiple keyboard language selections

Supporting layouts



N N keyboard

Optional:

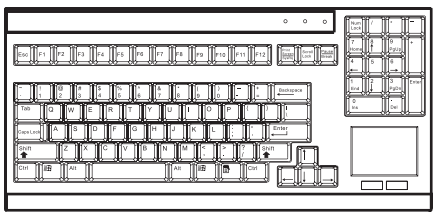


WOM-01
Wired Mini USB Optical Mouse

WOM-02
Wireless USB Optical Mouse

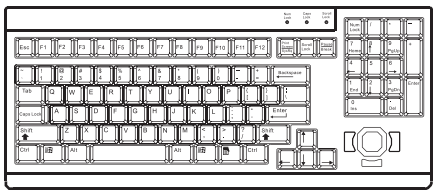
For ER1-17/19 D/T Series

Supporting layouts only



t Compact keyboard integrated with touch-pad mouse

Supporting layouts only



d Compact keyboard integrated with trackball

4.1 KVM Options

Chapter 4

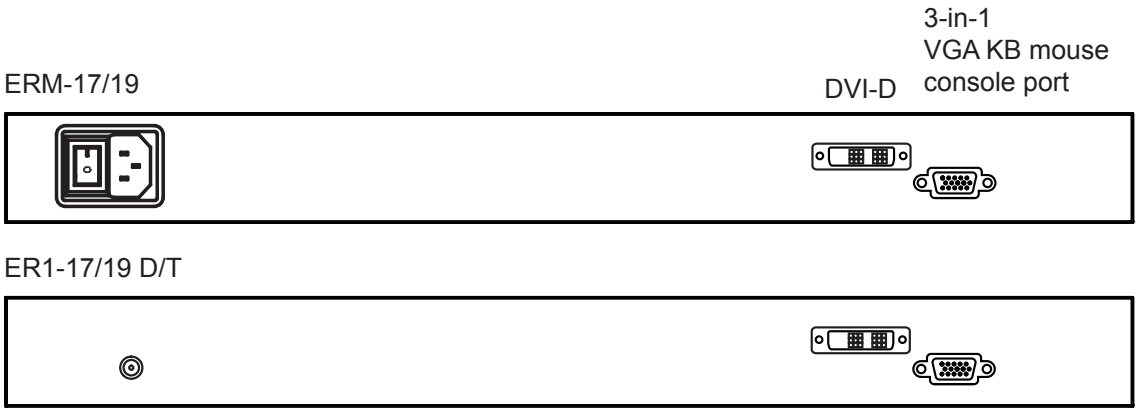
Our KVM is designed to seamlessly integrate into the rear of our full range of LCD drawer solutions:

- For KVM operation, please refer to KVM user manual
- Options available for multiple consoles via Matrix KVM
- Options available for high density & cost efficient Combo KVM integration with either 8 / 16 / 32 ports
- Options available for low cost PS/2 KVM
- Please ask your supplier for full KVM details

Please Note:

- Matrix & Combo KVM options are not available for ER1 D/T models

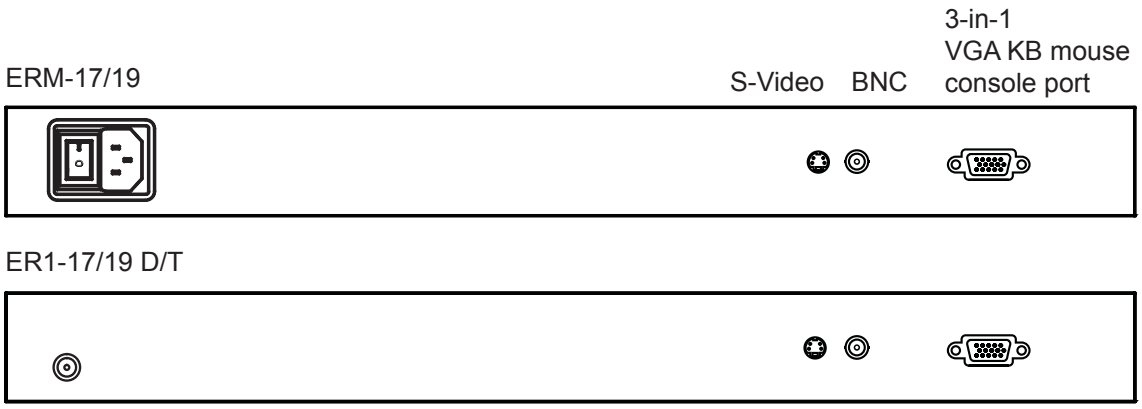
4.2 DVI-D Option



Please Note:

- Package includes 1 x 6ft DVI-D cable
- The depth will be extended from 700mm (27.6") to 750mm (29.5")

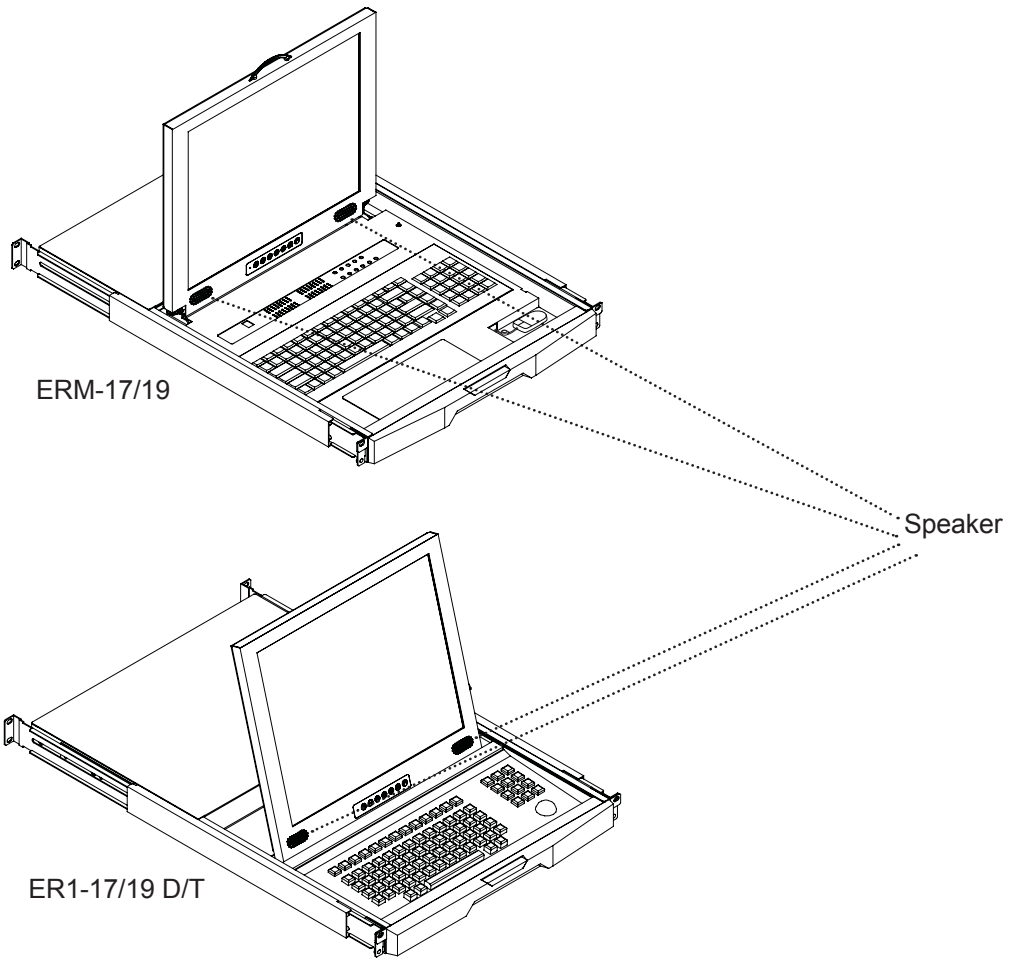
4.3 BNC + S-Video Option

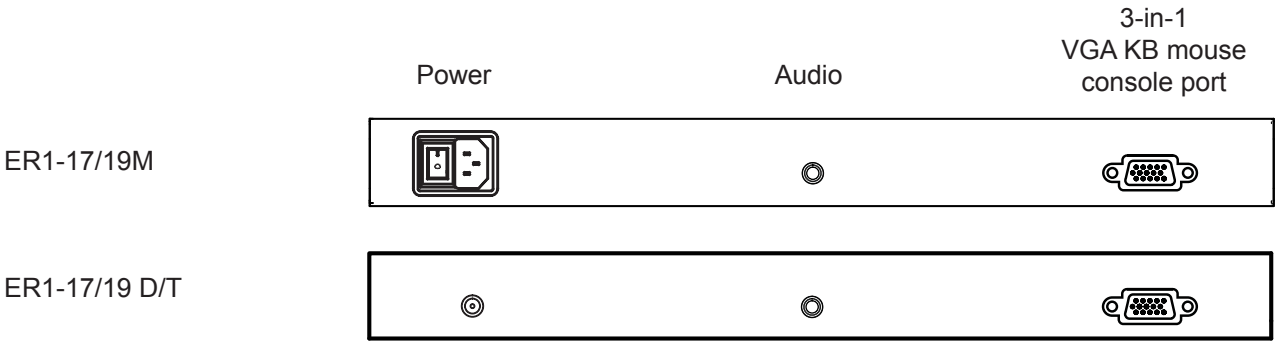


Please Note:

- Package includes 1 x 6ft S-Video cable

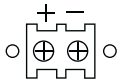
4.4 Audio Option





Please Note:

- Audio input is 35mm audio plug
- The speaker is sharing the same power with LCD.

4.5 DC Power Options 

Model	12V	24V	48V
Input rating			
Input voltage:	12-Volt	24-Volt	48-Volt
Input range:	9 ~ 18V	18 ~ 36V	36 ~ 75V
Input current			
- No load	50 mA	50 mA	50 mA
- Full load	4950 mA	2450 mA	1220 mA
Output rating			
Output voltage:	12-Volt	12-Volt	12-Volt
Output current:	4.16A	4.16A	4.16A
Efficiency	84%	85%	85%

Remarks:

- Power cabling is not included with DC Power option
- The depth of ER1-17/19 D/T series will be extended from 700mm (27.6") to 750mm (29.5")

4.6 Touchscreen Options

e-Resistive

Model	-17TRB / -17TRS	-19TRB / -19TRS
Screen size	17"	19"
Interface	USB / serial	
Optical transmittance	80% ± 3%	
Surface hardness	≥3H (JIS K5400)	
Operating system	Windows 98 / 2000 / ME / XP / NT / CE, DOS, Linux	

e-Capacitive

Model	-17TCB / -17TCS	-19TCB / -19TCS
Screen size	17"	19"
Interface	USB / serial	
Optical transmittance	93% ± 2%	
Surface hardness	>9H Surface hardness, withstand over 300 million touches	
Operating system	Windows 98 / 2000 / ME / XP / NT / CE, DOS, Linux	

Please Note:

- The height of ERM-17/19 & ER1-19 D/T will be increased from 1U to 1.5U
- USB touchscreen package includes 1 x 6ft USB cable, quick reference guideline and CD disc
- Serial touchscreen package includes 1 x 6ft serial cable, quick reference guideline and CD disc
- For detailed information, please refer to the CD disc included with the touchscreen
- As the touchscreen unit is not made of toughened glass, please handle it carefully
- Touchscreens in other brands are available on request

5.1 Troubleshooting

Chapter 5

1. How do I adjust the resolution?

To change monitor resolution, click Start -> Control Panel -> Display. Select Setting tab to adjust the monitor resolution in Desktop Area. The available resolutions, "640 x 480", "800 x 600", "1024 x 768", "1152 x 864", "1280 x 1024", are determined by the display card in your computer.

2. Is interference signal appeared on LCD normal when shutting down the computer?

In rare cases, interference may appear on the monitor. This may be caused by signal rate of VGA card and is considered normal. The image quality can be improved by adjusting the phase or pixel rate automatically or manually.

3. The membrane power light is not lit?

Press the power On / Off on LCD membrane to check if the monitor is in the ON mode.
Check the power cord is properly connected to the LCD keyboard drawer and power outlet.

4. Screen image is not centered or sized properly

Press the button for two seconds to automatically adjust the image.
Adjust the H-position and V-position settings via On-screen menu.

5. Is the LCD keyboard drawer hot-pluggable?

The LCD keyboard drawer is hot-pluggable, but components of connected devices such as the servers and KVMs may not be hot-pluggable. We suggest turning off the power to all devices before connecting them. Apply power to connected devices again only after the LCD keyboard receives power.

6.1 Dimensions

Chapter 6

Model	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
E **R**M-17	442 x 650 x 44 mm 17.4 x 25.6 x 1.73"	589 x 826 x 168 mm 23.2 x 32.5 x 6.6"	17 kg 37 lb	23 kg 51 lb
E **R**M-19	442 x 700 x 44 mm 17.4 x 27.6 x 1.73"	589 x 856 x 168 mm 23.2 x 33.7 x 6.6"	18 kg 40 lb	24 kg 53 lb
E **R**1-17 D/T	442 x 700 x 44 mm 17.4 x 27.6 x 1.73"	589 x 856 x 168 mm 23.2 x 33.7 x 6.6"	18 kg 40 lb	24 kg 53 lb
E **R**1-19 D/T	442 x 700 x 44 mm 17.4 x 27.6 x 1.73"	589 x 856 x 168 mm 23.2 x 33.7 x 6.6"	19 kg 42 lb	25 kg 55 lb

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